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Measuring fiscal stance for the United Kingdom, 1920-1990

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Abstract

The purpose of this paper is twofold. First, it presents a very concise way of measuring fiscal stance. This procedure is based on the assumption that the 'neutral change' in the government budget can best be simulated with a long-term approximation of the underlying trend of total output. It is transparent and straight-forward, albeit to some extent necessarily arbitrary. Second, the procedure allows a long-term view on fiscal stance in the UK. It employs a consistent approach, which makes it possible to unify the discussions which have hitherto focussed on separate decades on the basis of measures of fiscal stance, which were difficult to compare. The results of the exercise show that government policies added to the total demand in the economy during the late 1930s. The impact was sustained over the years 1948-67, although the short-term impact of policies caused the stance of fiscal policy to fluctuate. After 1975 a gradual decline of public expenditure started, while revenues remained at level. During 1979-1990 the net contribution of the public budget to total demand has been negative in an economic sense. As far as governments attempted to smooth business cycles by fluctuating the stance of fiscal policy, their attempts do not seem to have been successful. The growth of GDP was subjected to business cycles throughout the period under observation. As far as the impact had some significance, it appeared to have prevented a major set-back in output growth in the 1930s. In contrast, it seems to have increased the shortfall in total demand in the 1980s.

Keywords: Fiscal stance; fiscal policy; budget deficit; public expenditure; business cycles; United Kingdom; United States

JEL codes: E62, N10, H50, H60, N14

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Preface

This is the second edition of a paper that was first published in 1992 the series *Working Papers in Economic History No.171* of the then Department of Economic History of the Research School of Social Sciences at the Australian National University. As footnote 1 explains, it was written as part of a research project at the National Institute of Economic and Social Research in the UK, led by the renowned British applied economist, Mr Christopher Dow.* Mr Dow passed away in December 1998 and his book *Major Recessions: Britain and the World, 1920-1995* (Oxford University Press, 1998) was published posthumously. The book contains a brief appendix (pp.118-129) that offers Mr Dow's interpretation of the results of this paper. As copies of the 1992 working paper are not available online, I continue to receive requests for photocopies of the paper. For that reason, I decided to publish this second edition. Apart from some corrected typos and errors in grammar and spelling, the text is identical to the 1992 edition, although the pagination is slightly different. The text has not been updated with findings in relevant academic studies that have been published since 1992.

* McMahon, Kit (1998) 'Obituary Christopher Dow', *The Independent* (4 December 1998); Britton, Andrew (2000) 'John Christopher Roderick Dow, 1916-1998' in *1999 Lectures and Memoirs, Proceedings of the British Academy, Volume 105*. (Oxford University Press) 396-413.

Measuring fiscal stance for the United Kingdom, 1920-1990

1. Introduction¹

This paper is about the actual impact of ‘demand management’ in the United Kingdom (UK). According to conventional wisdom about British post-war economic policy, ‘demand management’ secured full employment until the 1970s (*e.g.* Stewart 1972: 13). Both Labour and Conservative governments used a Keynesian economic policy in order to ‘fine-tune’ economic development in a way that optimum use of resources and therefore low unemployment were secured. More than in any other country, fiscal policy was regarded as the post-war centrepiece of macro-economic policy in the UK.

During the 1970s the emergence of the previously unknown phenomenon of ‘stagflation’, a combination of slow growth, high unemployment and rapid inflation, signified a puzzling difference between the current economic crisis and the crisis in the 1930s. At that time several authors proclaimed the end of Keynesian ‘demand management’ (*e.g.* Worswick 1977).

In 1979 the Thatcher government turned to an arsenal of ‘monetary policy’, arguing that ‘demand management’ was neither an operable, nor a desirable way of achieving economic stabilisation. This new set of policies contained different instruments and operated with perceptions of the economy which were incompatible with the previously held Keynesian views. The government explicitly gave up the idea that it could exercise control over the level of employment, and essentially refuted the goal of full employment in favour of price stabilisation and the reinforcement of the foreign reserves.

Fiscal stance is the impact of all changes in government receipts and expenditures other than those which arise directly from fluctuations in aggregated economic activity (a more detailed discussion will follow below). It is not *per se* a measure of fiscal policy, which is the main instrument in ‘demand management’. Deliberate legislative and administrative actions in the form of changes in the tax rates or spending plans (in short ‘discretionary’ policy measures) are only one source of variation in the cyclically-adjusted budget balance.

Fiscal stance is in principle neutral to the political vows of the government in power on changes in taxation and public expenditure. As long as there are public authorities that raise taxes and spend the revenues, there is fiscal stance. It is therefore possible to compare the impact of fiscal stance over the years under observation, although the catch-phrase ‘demand management’ did not

1. This paper was written when I was a research officer at the National Institute of Economic and Social Research in 1990-1991, assisting Mr J.C.R. Dow. Mr Dow proposed the broad outlines of the paper. Together we elaborated the procedure presented here. I am grateful to Mr Dow for his comments. However, the text and the conclusions in this paper are my responsibility. Mr Dow’s more extensive interpretation of the results of this paper will appear in his forthcoming book *Big Recessions and Major Recoveries: A Theoretical and Historical Analysis of the UK and the World Economy, 1920-1993*.

emerge until the 1950s, and although it has been officially repudiated in 1979. Government actions already affected total demand before it became a conscious aim. There is therefore no reason to restrict the argument to the era of ‘demand management’.

We intend to discuss the two points of common wisdom mentioned above, by asking whether ‘demand management’ indeed worked as it was supposed to in the 1950s and 1960s, whether it did not leave any impact during the interwar years, why it failed to be effective in the 1970s, and what the effects have been in the 1980s. We take a long-term view on the impact of ‘demand management’ policy, because in our opinion the impact of fiscal stance (which will be explained below) can best be approximated with a long-term perspective on economic change.

We will shed light on several discussions about the impact of fiscal policy. By taking a long-term view, we will indicate that fiscal stance is not necessarily correlated with the commitment of a government to ‘manage’ the economy, and that therefore the exogenous short-term impact of government policy on economic development is relatively limited. The use of a catch-phrase such as ‘demand management’ may therefore have served the purpose of rallying electoral support, but it is not appropriate to use the formal presence or absence of the phrase in government policy as an explanation of the economic fortune of the UK.

The next section briefly elucidates in general terms the impact of fiscal stance on economic development. The following two parts elucidate the emergence of ‘demand management’ in government policy, and the views on its historical effects. In the fifth section we describe our procedure to measure fiscal stance, and discuss the results. In section six we provide estimates of fiscal stance in the US for the years 1929-90, based on our procedure, in order to show that the procedure is relatively easy to duplicate for other countries. The last section sums up the conclusions which we draw from our exercise.

2. What is Fiscal Stance?

The basic ideas, on which the analysis of fiscal stance and the principles of ‘demand management’ are based, have been formulated by Lord Keynes. In basic terms it infers that by increasing or decreasing net government spending total demand in the economy can be regulated and economic growth can be furthered or decelerated at will.

The key assumption is that during a regular process of economic growth, the underlying potential output capacity increases. The capacity advances because of the accumulated investment in capital stock, and because of the natural increase of the available workforce. It also increases because of a range of other factors. One of them is the changing quality of capital through technical progress, and of labour through an advancing general level of education. Another factor is the implementation of institutional arrangements which facilitate the efficiency and flexibility of the economy. In a situation of full employment there is a level of total demand in the economy, which purchases all potential output. However, in reality one observes fluctuations in unemployment.

They imply an erratic use of the productive capacity, caused by exogenous shocks in total demand in the economy.

An important principle of Keynesian economics is the notion that the government can add to the level of actual total demand in an economy, in an attempt to increase the absorption of the output of goods and services and decrease unemployment. It can do so by increasing its net public spending. In other words, if spending by the private sector is insufficient to ensure the full use of the available resources, especially labour, the government can step in with corrective over-spending (or under-taxing), which creates a net budget deficit. In order to restore the long-term financial balance, a government is expected to under-spend (or over-tax) in a period of economic upturn.

The principles of 'demand management' are relatively straight-forward. The idea that public spending on capital projects could help to reduce unemployment did therefore not begin with Keynes. The direct effects of capital spending were obvious to anyone before him. In his *General Theory* (1936) and *How to Pay for the War* (1940) Keynes supplied an intellectual plausibility for it. He provided a revolutionary theoretical foundation for refuting the previous idea that high government expenditure was the cause of unemployment, rather than the cure. In the late 1930s the belief spread that a budget deficit was acceptable, at least in the short run, and that total demand for goods and services in the economy could be 'managed'. During the years 1941-79 the adjustment of aggregate demand to aggregate supply has been the dominant mode of thought underlying economic policy formation in the UK (Prest 1968: 2; Price 1978: 209).

The effectiveness of fiscal policy as the main instrument of 'demand management' can be assessed with the 'stance' or 'leverage' of fiscal policy. Fiscal stance is defined as the year-to-year impact of a change in government expenditure *less* the impact of a change in the rates of taxation. If there were no economic growth and no price change all changes in the public budget would be the result of government decisions. The impact of these decisions can in this case be measured by the actual statistics of government expenditure and receipts. However, in reality the measured *ex-post* revenue and to a lesser extent expenditure will be the resultant of both policy measures and economic growth and price changes. Before assessing fiscal stance, it is therefore necessary to distinguish the hypothetical level of GDP, which would have resulted if there would not have been any changes in the patterns and levels of public sector expenditure and receipts, from the actual level of GDP. It is only after such an exercise that fiscal stance can be assessed as the change in the net fiscal impact from one period to another, indicating the direction and the impact of the impulse which government policies give to the economy at large.

By concentrating the argument on fiscal policy, we may give the impression that this is the only government instrument for stabilising output and demand. We are running the risk of neglecting the impact of for instance monetary and exchange-rate policies. In principle these policies also affect total demand in an economy. There are several items of monetary policy. To mention a few: the manipulation of the interest rates by changing the rate which the Bank of England charges the commercial banks, the imposition of ceilings on bank advances, changes in

the compulsory deposits held by banks at the Bank of England, or changes in the hire-purchase regulations. All these policies may stimulate private saving or dis-saving, and therefore diminish or boost total demand for goods and services.

It goes without saying that successive British governments have used the items of monetary policy. But monetary policy in the UK is said to have been largely ‘accommodating’ until the late 1970s.² It was mainly used to mind the state of the balance of payments, and to keep the general interest rate at a low and constant level. This attention to the balance of payments situation was considered to be an integral part of ‘demand management’, because changes in foreign competitiveness affected the propensity to consume domestically produced goods and therefore domestic employment. But on the whole there does not seem to have been any special government attention to these issues for their own sake, until the Thatcher government formally embraced the principles of ‘monetary targeting’, or ‘monetarism’, in 1979. The new government explicitly preferred the components of monetary policy, such as the control over money supply via credit restrictions, Bank rates and exchange rates, as strategic instruments to manipulate price levels and commercial interest rates, in order to bring down the rates of inflation and eventually unemployment.

In spite of this change in monetary policy, the British exchange rate policy seems to have been only of significant importance during the years 1949 and 1967, until the entry of Britain in the European Exchange Rate Mechanism in October 1990. In those two years the pound was devalued. These devaluations increased total demand, in spite of government attempts to enforce fiscal off-sets at the same time. At least for the period up to the 1980s, the concentration of the argument on the impact of fiscal policy therefore seems to be justified.

3. The Measurement of Fiscal Stance

The effect of fiscal policy changes comes from a combination of changes in government spending and changes in the tax rates. Up until the 1960s fiscal policy studies used the ratio of public expenditure and GDP as an indicator of the increasing influence of government in the economy, and the actual *ex-post* budget balance as the indicator of fiscal stance. (For the UK, *e.g.* Sayers 1956: 67-74; Little 1962: 246-251)

Cyclical Adjustment

In the 1960s it became widely acknowledged that the *ex-post* balance is in fact an unreliable indicator. It does not distinguish between the impact of changes in the budget balance due to fiscal

2. Or, as Artis (1978: 303) put it: ‘[...] it seems unlikely that monetary policy did very much for good or bad [...] it did not do very much at all, and was not supposed to.’

policy measures, and the fact that endogenous cyclical changes in national income affect most tax receipts (assuming that tax rates are constant) and some expenditure components. The difficulty in the estimation of fiscal impact lies in separating the impact of discretionary changes due to fiscal policy from cyclical economic changes, particularly in respect of changes in tax receipts.

Different authors have tried to purge the budget balance of its endogenous component by employing one of the following two methods in their accounts of fiscal impact.³ The first procedure makes use of estimates of the effect on tax revenue of any given change in the tax rate or other provisions, based on knowledge of the tax laws. For the post-war years, official such *ex-ante* estimates of the expected change in tax yield are published in the annual *Financial Statement and Budget Report*. The residual, which remains after subtracting the anticipated effect from the actual change in tax receipts, can be attributed to the effect of changes in the tax bases, *i.e.* the non-policy element. The impact of the economic cycles is thus approximated by subtracting the *ex-ante* change in tax revenues from the *ex-post* tax revenues.

Dow (1964: 178-213) was the first to employ this procedure for the UK. Musgrave and Musgrave (1968: 40-42) and Price (1978: 154 *cf.*) have followed this example. There are three major disadvantages to this procedure: (a) it is tediously labour intensive, given the complexity of the tax laws and the effects which changes trigger; (b) it is only as accurate as the original official forecasts about the effects of the tax changes; (c) it can only be used for the assessment of the impact of the fiscal policies of the central government, for which only contemporary estimates are available in the UK.

The second method is in some form used by most authors. It starts with the identification of the underlying cyclical changes in the economy. The cyclical adjustment to the changes in national income is subtracted from the change in tax receipts in any period, to give an estimate of that part of the change in receipts which can be attributed to changes in the tax rates. The advantage of this procedure over the first is that it is relatively simple. The main draw-back is that this procedure contains an arbitrary element: the identification of the ‘regular’ economic cycles.

According to Ward and Neild (1978: 10) there is no need to be too concerned about the precise choices made to obtain cyclical adjustment, *i.e.* the level of what they call ‘constant employment national income’. They argue that is the value of the changes in the *ratio* of the ‘constant employment budget balance’ over ‘constant employment national income’ that matters. The level of the ratio depends very much on the choice of ‘constant employment income’; the changes in the ratio are not heavily affected. In contrast, Price and Muller (1984: 34) explicitly state: ‘Uncertainty about potential growth must [...] be recognised as one of the most important drawbacks of structural budget balance estimation.’⁴

3. Compare Ward and Neild (1978: 2-3). This study is entirely about the measurement and implication of the ‘constant employment balance’.

4. Note the difference in terminology. In the US it is customary to write about ‘full employment budget balance’, latterly about ‘high employment budget balance’, in the UK the terminology is ‘constant employment budget balance’, in Germany ‘cyclically-neutral budget balance’, and the OECD phrase is

A few examples referring to the UK may indicate how arbitrary the identification of ‘regular’ cycles can be:

- Hansen (1969: 55-56, 447), in his classical assessment of fiscal stance in seven OECD countries, used Dow’s methodology to obtain estimates of discretionary tax changes. He subtracted the growth rates of net public outlay and of actual GNP for each year, and labelled the remaining growth rate the ‘pure cycle’. He then fitted regression lines to the time series of the actual GNP growth rate and of the ‘pure’ GNP growth rate, in order to get an impression of fiscal impact over the entire period under observation.
- Snyder (1970) used Godley and Shepherd’s (1964: 29) estimate of potential output, rather than actual GNP like Hansen. Potential output was defined as output corresponding to labour input minus an unemployment rate of 1.5% times the ‘underlying productivity trend’.
- Ward and Neild (1978: 11, 39) smoothed the growth of output with the rate of unemployment showing temporary deviations from a chosen benchmark level of unemployment of 2.5%.
- Middleton (1981: 268) used a straight interpolation of actual national income in two years in the 1930s during which unemployment was relatively low. He assumed that full use of the productive capacity was made in these two years.
- Savage (1982: 95) and Biswas *et al.* (1985: 55) used the procedure which had become customary in the assessment of fiscal impact at the NIESR. It differed from the other procedures. It did not seek to estimate what the budget balance would have had to be at a high level of employment, but to establish the variations in the balance that would have occurred if the economy had grown at a specific trend rate. These trend rates varied in the different NIESR estimates of fiscal stance in the past.
Savage (1982) assumed that the underlying rate of output growth was 2.5% and calculated the required rate of output growth by smoothing the rate of unemployment with the rate of output showing temporary deviations from this benchmark level. Biswas *et al.* (1985: 57) used the average rate of growth during the period 1964-73 of 2.7% and thereafter worked with alternative scenarios of respectively 1%, 2% and 3% trend growth.
- Price and Muller (1984, p.33) interpolated output from ‘a peak of high employment in the early 1970s to a peak in the late 1970s’. The peaks were in fact 1970, 1974 and 1979, according to Miller (1985: 47) who duplicated their approach. Until recently this seems to have been the standard procedure of the OECD in the regular *Economic Outlook* country studies.
- The procedures employed by the IMF used to vary from country to country. Heller *et al.* (1986: 10-11) state: ‘[...] the Fund’s estimates of potential output are developed by the individual country desk economists and represent an amalgam of estimates provided by the authorities and staff estimates. [...] In some instances it may refer to a peak-to-peak value attainable only with increasing inflation; in others, it may be based on a *natural-growth-rate*

‘structural budget balance’.

notion.’⁵ Until recently this seems to have been the basis for the regular estimates of fiscal stance in the IMF *World Economic Outlook* series.

We have already explained that the underlying trend of potential output in an economy depends on the development of the quantity and quality of physical and human capital. It is questionable whether actual national income data can be used to approximate the underlying trend, because it is not certain that all potentials have been captured. It is therefore not certain to what extent they contributed to yielding the actual level of national income. If there is a structural underemployment of one of the potentials, the obtained estimate of potential output trend may be too low.

Both the IMF and the OECD have recently acknowledged this point. Both institutions have changed to more sophisticated procedures for estimating potential output, in which they seek to take account of long-term changes in the output potential. Both now use production function approaches. The IMF procedure relates output to the inputs of labour and capital and defines potential output as that level of output that is consistent with non-accelerating inflation (Adams *et al.* 1987: 13-14). The OECD estimate of potential output is similar, based on changes in labour force, the use of capital and energy, and total factor productivity (Torres and Martin 1990).

It may now be clear that it is only possible to use the *ex-post* budget balance as an indicator of fiscal impact for periods in which the economic trend is easy to establish. In these periods the growth of output, and therefore the autonomous increase of tax revenues and expenditure, can be predicted relatively accurately. But the use of the *ex-post* balance is not permitted for periods in which there are doubts about the trend, and therefore about the underlying productive capacity in the economy. This is the explanation for the difference in the concern about the choice of the measure of potential output between Ward and Neild (1978) and Price and Muller (1984) mentioned above.

Differentiation of Expenditure and Receipts

An increase of government expenditure has a higher income generating impact than a decrease of tax rates by a comparable nominal amount.⁶ The difference is caused by the fact that the marginal propensity of households to consume is less than unity. Households only consume a part of the extra net income due to tax reductions. The rest is saved. Government outlays on the other hand contribute to the full to national expenditure. If this difference is acknowledged, one should also note the fact that the specific categories of government revenue and expenditure have different income generating, or income reducing impacts. They depend on the tax rates and on the propensities to consume of those who either raise or receive the amounts.

5. Emphasis added, after all what is ‘natural’ growth? Even the growth of the labour force is not only determined by the rate of natural human reproduction.

6. See Musgrave (1964), who first elaborated this concept for the US.

To give an example, an increase in the rate of company tax will in the first place lead to a reduction of corporate saving or investment, rather than to a decline of profits and the personal expenditure of those who earn the dividends. Income taxes on the other hand affect all members of society and are bound to have a higher impact on personal expenditure. They impinge more directly on consumers, albeit that changes in the income tax rate will have a different impact on the average household expenditure in each section of society, according to the concerning propensity to consume.

In principle it is therefore necessary to differentiate the categories of expenditure and taxation, in order to provide an accurate estimation of the impact of fiscal policy. In the UK this has only become possible in the 1960s. Before that there was no adequate information on public expenditure according to economic categories available (Peacock and Wiseman 1961: 70-95; Dow 1964: 183; Feinstein 1972: 67 and 77) Estimates of fiscal impact were for practical reasons limited to an approximation with the *ex-post* budget balance.

In practice the differentiation of categories of revenue and expenditure comes down to assigning a different weight to each category in the aggregation of revenue and expenditure. Authors who have taken this point into the account have used different weights for similar categories. The weights differ of course according to the period under observation, because propensities change over time. In the main, the differences are due to the fact that there are no adequate sets of weights available for long-term analysis. The choice of weights is arbitrary. It may be noted here that several authors have indicated that it does in fact not matter very much what weights are assigned. Some have stated that the difference between weighted and unweighted fiscal impact is marginal.

Public Authorities

Another point of controversy concerns the question whether the budgets of local public authorities, national insurance funds and public corporations should be taken into the account. Strictly speaking, all these budgets are under government control. Therefore, both Musgrave and Musgrave (1968) and Hansen (1969) included investments by public corporations. Boltho (1981) has questioned this procedure. He pointed out that there are differences in the degree of real control over public enterprise investment between countries. Another reason for excluding the investment by public enterprise is the fact that a large part of it is pre-determined and not subjected to short-term counter-cyclical policy measures.

Bispham and Bolto (1982: 299) have made a similar point in regard of the lower-level public authorities. The extent to which their revenues and expenditure patterns are controlled by the central government depends very much on the degree of fiscal centralisation in the political constitution. Middleton (1981: 269) excluded the local authorities from his analysis of fiscal impact in the UK in the 1930s. His argument was that they were to a large extent financially independent during the pre-war years. Both the IMF and the OECD only analyse the impact of central

government budgets in order to be able to deal with all countries on the same basis.

After World War II the local authorities in Britain became responsible for the execution of the education and housing policies, and a large part of the health care policies, which were introduced by the central government. This made the revenue and expenditure policies of local governments more dependent on directives and financial transfers from the central government.

Inflation Correction

Another point is that inflation can have two potentially distorting effects on the measurement of fiscal stance. First, with a progressive tax system a rise in incomes (whether due to economic growth or to inflation) tends to raise the burden of taxation, because the 'tax allowances' are normally adapted to price changes every other year, while nominal incomes rise throughout the year. Tax revenue as a proportion of GDP at current prices tends to rise, although there is not necessarily any change in the tax rates. This phenomenon is generally referred to as 'fiscal drag'.⁷

Second, inflation erodes the real value of the net financial liabilities of the government. The nominal interest payments on government debts to the public may increase, in which case the budget is expansionary in nominal terms. The result is that the public may get the impression that its income increases, while ignoring the depletion of the real value of its assets through inflation. The net result may be that the purchasing power of the public is affected, which means that the government is levying a virtual 'inflation tax'. Several authors have discussed the point that in principle government accounts should be corrected or this virtual 'inflation tax' (Ward and Neild 1978: 12-13; Miller 1985: 50-54; Savage 1982: 92; Heller *et al.* 1986: 21-26).

Correction for these two effects can be very complicated. The correction for 'inflation tax' depends very much on the assumptions about the private sector's perception of and response to inflation tax. Moreover, most of the government's debt is managed by institutional investors, who will only forward the 'inflation tax' to the consumers after a substantial delay. Last, the impact of 'inflation tax' is bound to be marginal, because of the low weights generally given to interest payments on government debt and interest receipts.

Trade-Off between Technical Refinement and Analytical Capacity

It may be clear that the assessment of fiscal impact does not have to be limited to the *ex-post* budget balance any more. Both the theory of 'demand management' and practice of measuring fiscal stance received a great deal of refinement. New econometric techniques and the introduction and improvement of the economic classification of public expenditure in the UK have since the 1960s allowed fiscal policy studies and econometric modelling to further the sophistication of the

7. Although 'bracket creep' is common in Australia.

empirical basis, and to take the above mentioned problems into the account.⁸

Although theoretical refinement and the introduction of various new techniques may seem to minimise the theoretical problems, it should be remembered that there still are key elements in the assessment of fiscal stance which are based on arbitrary choices. *E.g.* approximations of the underlying trend of national income remain based on the available estimates of actual national income. The weighting system of the categories of revenue and expenditure remain arbitrary proxies because of the lack of measured marginal propensities to consume. Each refinement of the approximation of this trend will therefore necessarily involve an arbitrary choice. Each choice may obscure the basic causality.

The limitations imposed by these practical constraints on the use of measures of fiscal stance as an analytical tool, together with the demise of ‘demand management’ after the recent period of stagflation have incited some authors to raise doubts about the usefulness of seeking to measure fiscal stance, because the results seem to depend so much on the used procedures. Mackenzie (1988) has recently questioned the concept of fiscal stance in a paper with a provocative title. Our discussion of the concept of fiscal stance in this section of the paper may indicate that we are well aware of its limitations.

4. The Discussions about the Impact of Fiscal Policy in the UK

The discussion about the measurement of the actual impact of fiscal stance started relatively recently, although the theoretical fundamentals of demand management were already embraced in the 1930s. One reason is that adequate information on public expenditure was not released until the 1960s. Another is that refined theories of fiscal policy, rather than straightforward Keynesian ideas, did not mature until after the 1960s. Hence, surveys of long-term economic development in the UK have hitherto hardly used consistent long-term measures of fiscal stance in the analysis.

Since the introduction of the guiding principle of ‘demand management’ in 1941, both Labour and Conservative governments have pledged themselves to economic policies aimed to guarantee full employment. Especially in the 1950s and 1960s many in both Labour and Conservative administrations held the opinion that fiscal policy could contribute significantly to the management of total demand in the economy in order to safeguard full employment (Dow: 178-213)

The impression that it had been Keynes who handed the post-war governments the theoretical foundations for a successful practical policy of securing low unemployment rates and high economic growth during the 1950s and 1960s with an effective ‘demand management’ policy, remains persistent. Some have even argued that if Keynes only would have spoken out earlier, the misery of the 1930s would never have happened (Clark 1957: viii). This axiom contributed to the perception that the unprecedented post-war economic upswing had been due to Keynesian policies

8. Lotz (1971) and Chouraqui *et al.* (1990) provide overviews of the methods.

(whether by principle or by accident) rather than to something else.

The 1950s

Dow (1964: 211, 384 and 391-392) was the first to point out that as far as fiscal policy as a form of 'demand management' had any impact during the period 1948-60, it is more likely to have increased the fluctuations in the growth of demand, than to have smoothened them. His thesis has been endorsed by several other authors, notably Musgrave and Musgrave (1968: 40-44; Hansen 1969: 443-444; Snyder 1970: 928; Ward and Neild 1978: 39). Prest (1968) looked only at the directions of the quarterly trend cycles in several economic variables. He corroborated Dow's thesis for the period 1955-66 by finding a modest negative correlation between the deviations from trend of public expenditure and an index of capacity utilisation. Prest did not endeavour to provide any indications of the actual degree of impact of fiscal changes, or the extent of the destabilising effect of fiscal policy. Matthews (1968) and Matthews *et al.* (1982: 310-311) supported Dow by simply pointing at the budget surpluses and the relatively insignificant levels of unemployment in the 1950s. They argued that total demand was high until 1973 despite, not because of fiscal policy.

Dow's thesis has since become conventional wisdom among economists, although it did not remain unchallenged. Bristow (1968: 307), concentrating on the effects of discretionary tax changes, concluded that for certain years the changes may well have been destabilising, but that over the entire period the tax changes boosted national income and had a stabilising effect. Worswick (1971: 51-52) has argued that stabilisation as such never had been an object of policy. He maintains that it is a non-issue to try and seek the stabilising effect of fiscal and monetary policies with the wisdom of hindsight in order to pass judgement on government policy. Worswick (1971: 58) stated that such an attempt disregards the limitations of fiscal policy and wrongly stresses the potential of stabilisation policy 'if the authorities would have been more skilful in the timing or in the size of the fiscal changes'.

Recently, Tomlinson (1981, 1985, 1988) extended the challenge to common wisdom about the post-war impact of fiscal policy, by arguing that there never has been a 'Keynesian revolution'. In his view the Treasury remained reluctant to support long-term deficit financing in order to overcome relatively marginal and very specific unemployment problems during this decade. Fiscal policy was merely used to control both prices and the balance of payments. According to Tomlinson, the conception of demand management through fiscal policy is based on implausible notions of how economic policy is made and exaggerates the role of economic theory in policy formulation.

The 1930s

Concerning fiscal policy in the 1930s, Richardson (1967: 212) worded the traditional view among economic historians that it had been potentially destabilising. Winch (1969) argued that there could

not have been a 'Keynesian revolution' in the 1930s, because there was no such thing as Keynesian demand management in the core of economic policy. These opinions were largely based on a qualitative assessment of policies.

Middleton (1981) used the budding theory of fiscal policy and the evolving refinement of the measurement of fiscal stance, in order to shed light on the implicit assumption in the traditional view on the 1930s that some counter-cyclical fiscal policy may have speeded up the recovery. He endeavoured to measure the effect of fiscal policies pursued by the Treasury in the 1930s. Middleton (1981: 283) concluded that budgetary policy was 'not unsuccessful' in the late 1930s, although both the implementation and the effects of policy were a far cry from what became later known as 'demand management'.

This position was enhanced by Booth (1987: 513), who stressed that officials at the Treasury were not averse to implementing policies which would have generated a budget deficit. However, they were restrained by the problem that an inflationary policy could not be combined with retaining foreign confidence. Broadberry (1984) reviewed Middleton's calculations and drew attention to the fact that weighing budget items, on the assumption that they generate different effects, and including an inflation adjustment could render results which were less conclusive. Although the understanding of the intentions and possible effects of economic policy during this decade have increased with the 'state-of-the-art' publication by Booth and Glyn (1987), no new arguments have been introduced into this discussion on the basis of a quantitative assessment of the impact of fiscal policy.

The 1960s and 1970s

With historians assessing the 1930s, economists have extended the discussion about fiscal stance decades beyond the 1950s. Artis (1972), Ward and Neild (1978) and Price (1978, pp.211-212) extended Dow's conclusion that fiscal policy had been potentially destabilising to the years 1960-74. However, they stressed that the degree of destabilisation was relatively marginal.

The same conclusion had also been reached by Hansen (1969), who compared fiscal stance in the UK with other OECD countries. He concluded that not only had Britain destabilised its economy during the years 1955-65, it also had been the only OECD country to have done so. Bispham and Bolto (1982) argued for later years that the UK was not the only country to have destabilised its economy at certain moments in time. After comparing the experience of six countries, they concluded that 'the Keynesian revolution [...] played a key role in avoiding for a quarter-century any major set-back' (Bispham and Bolto 1982: 320). It was in the late 1970s, when policies aiming at reducing price pressures became more important, that demand management gave way and unemployment started to soar (Bispham and Bolto 1982: 322).

Cairncross (1981: 411) has argued that the impact of fiscal stance was lost after 1973, because an increasing share of public expenditure was spent on 'non-commercial services', such as pensions and housing. He implicitly assumed that the loss of fiscal stance accounted for part of

poor economic performance in the UK after 1973.

The more recent publications on fiscal stance mainly concern methodological aspects. They have not contributed much to the analysis of the impact of fiscal policy during the past decade. For instance, the IMF made estimates of potential output back to 1964, the OECD back to 1966 (Adams *et al.* 1987; Torres and Martin 1990). These estimates have hitherto not been used in a historical appraisal of the impact of fiscal policies.

The overview in this section shows that the use of measures of fiscal stance in the assessment of contemporary economic policy has become standard practice. The use of such measures for the assessment of historical economic development is still marginal. Apart from Ward and Neild's (1978) analysis of the 1950-79 period there is no comparison of the measured impact of fiscal policies in the UK over any long period of time. There are two general conclusions to be drawn from this overview of the available literature. First, the effectiveness of short-term fiscal action is questionable, and that the role of fiscal policy should not be overstated. Second, the role of economic theory in actual budgetary policy has been exaggerated.

5. Our Measure of Fiscal Stance

In this section we will elaborate a concise procedure for correcting the available data on real net government spending. We will use this method in order to evaluate the impact of fiscal policies in the UK during the past 70 years in the next section.

Public Authorities

We will use data on the revenues and expenditures of the combined public authorities (or 'general government' as defined in the national accounts), rather than the budget of only the central government.⁹ We chose to exclude the budgets of public enterprise, and to include the budgets of the local government and the extra-budgetary funds controlled by the central government, especially the National Insurance Fund.

The first reason for using this definition of the public budget is that we are interested in the long-term changes in the impact of fiscal policy. The investments of public corporations are very likely hardly subjected to policy changes, as Boltho (1981) has argued. The same argument may apply to the impact of short-term policies of the central government on the expenditure of local governments and the National Insurance Fund. We would argue that policies of the central government may have a profound impact on these authorities over a longer period. Secondly, our aim is not directly to pass judgement on the effects of central government policies. We intend to

9. The basic figures are obtained from Feinstein (1972, Table 14). Until 1961 the Post Office is included in the central government budget.

discuss the extent to which changes in aggregated demand are caused by fiscal stance, and to what extent the measure of fiscal stance can contribute to an explanation of the observed economic trend cycles.

Cyclical Adjustment

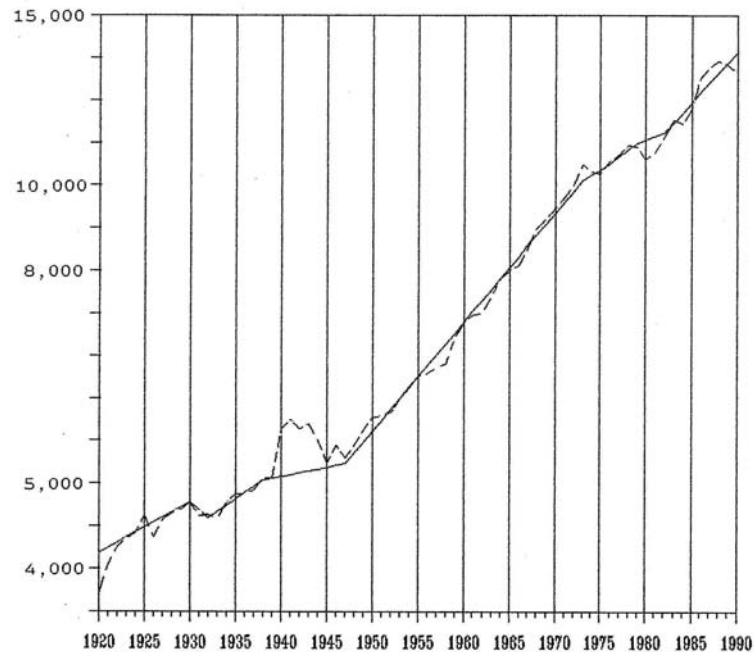
We stated above that one cannot use the *ex-post* budget balance as a proxy of fiscal stance for periods during which there is doubt about the underlying economic trend, and that the budget figures have to be corrected for cyclical change. A neutral fiscal change is one proportionate to the ‘normal’ or non-cyclical growth in the economy. Any approximation of the ‘neutral change’ of GDP, and the subsequent correction of the budget figures for neutral change, is necessarily subjective, as we indicated above. There should be no doubt about the fact that the procedure which we will use here in order to determine fiscal stance is no less arbitrary. In our opinion this problem can be evaded by taking a long-term view on economic change, which includes several decades. Such a view provides the best possible impression of the change in the productive capacity, and therefore gives the best possible approximation of the underlying ‘trend GDP’. Such a view makes it possible to exclude the short-term fluctuations in the economy.

It is of course possible to adopt a complicated procedure to approximate potential output, like the IMF and OECD have recently started to do. However, such an approach requires an elaborated set of statistically reliable data. The further one goes back in time, the less reliable the data get. For instance, the IMF and OECD estimates require adequate estimates of capital input, which are difficult to obtain. Moreover, by complicating the procedure, one may obscure the argument. By using a rough correction procedure, we sought to limit the number of choices, in an attempt to enhance the transparency of the procedure for the sake of the argument.

We approximated the ‘neutral change’ in the public budget by assuming that the underlying ‘trend GDP’ is determined by two variables: (a) the trend of labour productivity; (b) the trend of total labour force. We thus assume that the above mentioned factors determining potential output are incorporated in the changes of labour productivity. We also assume that the actual capital capacity increased enough to facilitate ‘trend output’.

In this approach of ‘trend GDP’ the observed development of labour productivity depends on the development of total output. Figure 1 shows that in periods in which the growth of real GDP declined, as was the case during the periods 1930-34 and 1973-82, the trend of output per worker dropped as well, even though unemployment soared during both periods.

Figure 1: Output per Worker, 1920-90 (1985 £)



----- Actual ——— Fitted

Note: Output refers to GDP at constant factor costs, excluding value added from North Sea oil industry. Employment also excludes the workers in the oil industry and the people in work-related government programs during the years 1983-89. Employment includes HM Forces.

Sources: Feinstein (1972); CSO (1990b).

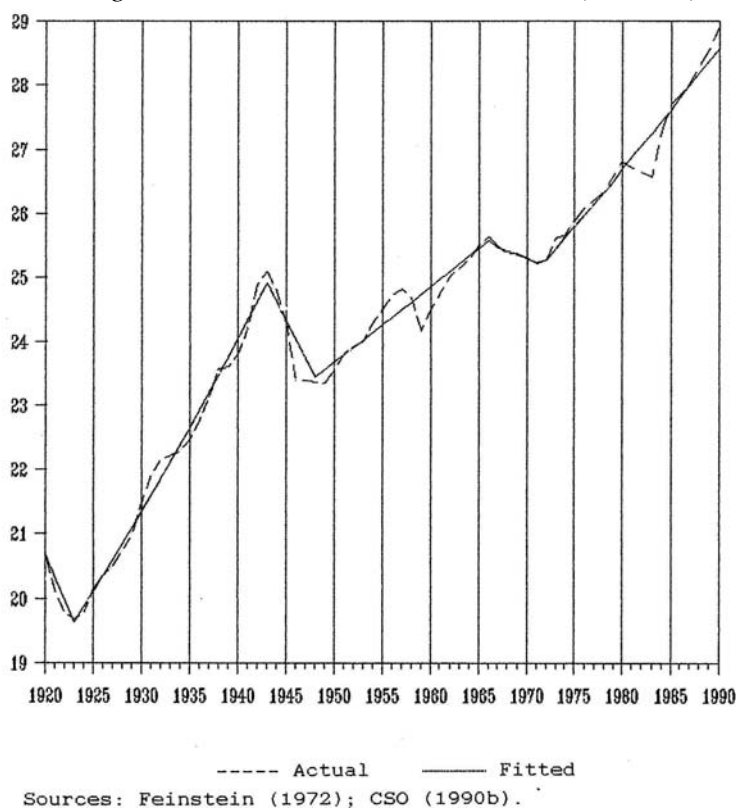
It is well established that in the short-run unemployment varies less than output and changes with a time lag (see *e.g.* Godley and Shepherd 1964: 29). The decline of productivity may be explained by the fact that entrepreneurs did either not immediately attempt to keep their profits at level by sacking workers when their sales dropped, or they were not able to do so for institutional reasons. Thus, experience teaches us that in times of recession a part of the possible advance of labour productivity is lost. This can be seen clearly in Figure 1. If for instance the pre-1973 trend had continued, labour productivity would have been about 13% higher in 1989 than it actually was. The chart indicates that the pre-1973 trend was restored after 1980. But by then the advance in productivity which could have been realised during the years 1974-79 had vanished. We did not attempt any correction for this phenomenon.

We fitted logarithmic trend lines for output per worker for the periods 1922-30 (excluding 1926), 1934-38, 1947-73, 1975-79 and 1982-90. 1926 was the year of the General Strike, which affected both labour input and productivity. It was therefore excluded from the trend fit. The years 1920-21 were extrapolated and 1931-33, 1939-46, 1974 and 1980-81 were interpolated.

Figure 2 shows the development of total workforce, including army personnel. Her Majesty's Forces were included, because the output of defence services is included in GDP. On the other

hand, output of North Sea oil is excluded from GDP, because productivity in this sector is unusually high. If it would be included, it would seriously distort the impression of the change in the overall productive potential. The workers in oil production, although marginal, are also excluded both from employment in the calculation of labour productivity, and the workforce.

Figure 2: Total Labour Force, 1920-90 (millions)

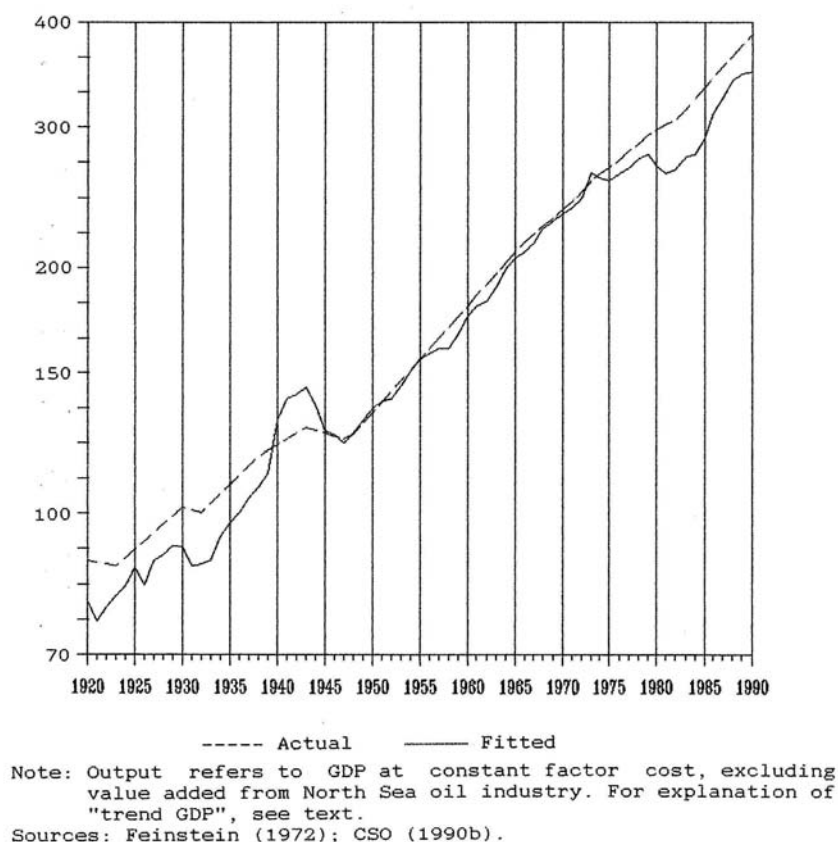


One can observe four major dips in the total workforce. The dip in 1920-22 was caused by the fact that women dropped out of the labour force in favour of men. The 1943-48 decrease was caused by the civilian and military war casualties and the fact that women, again, dropped out of the labour force after the war. The dip in 1959 is simply caused by an annoying discontinuity in the basic statistics.¹⁰ The decline during the years 1967-72 may have been real. It was most likely due to the fact that cohorts of 'war children' entered the labour force during these years. These cohorts

10. The labour statistics are obtained from *CSO Economic Trends* (1990: 111). A comparison of the quarterly figures on p.112 with figures published earlier by the Department of Employment in *British Labour Statistics, Historical Abstract 1886-1968* (1971: 220), reveals an unexplained 'loss' of 588,000 people in the second quarter of 1959. It should be noted that this 'loss' is different from the real decline of the labour force by 130,000 elderly workers, who as late-age entrants in the National Insurance scheme qualified for pensions in 1958 (Godley and Shepherd 1964: 34).

were smaller than preceding and succeeding cohorts, because of the decline of birth rates during the war years. The number of entrants in the labour market was lower than the number of people who retired during these years.

Figure 3: Actual and Trend GDP, 1920-90 (bn. 1985 £)



The dip during the years 1981-83 was due to a complex of reasons (*Employment Gazette* 1985: 257). It was partly caused by the increase of the minimum school-leaving age in 1982. In part the decline was due to the fact that the inflow of young people slowed down, after an inflow of sizable cohorts of people born during the period of high birth rates in the 1950s. The dip may have been accentuated by the inflow during the years 1983-84 of a generation of 'baby boomers', born during the 1960s. Another reason seems to be that people dropped out of the labour force prematurely because of the recession. Women failed to register as unemployed and elderly workers took early retirement under the special Job Release Scheme. We assume that the dip in the early 1980s was largely a result of the recession, and not of the potential labour force. We therefore did not apply a correction. We fitted logarithmic trend lines for the periods 1922-43, 1948-66 (excluding 1959), 1967-71 and 1972-90. 1920-21 was extrapolated and 1944-47 interpolated.

We multiplied the estimates of 'trend labour force' and 'trend output per worker' and obtained

a series representing ‘trend GDP’, shown in Figure 3. It should be noted that this estimate of ‘trend GDP’ is not necessarily the same as ‘full employment GDP’ or ‘constant employment GDP’, which have been used in other publications seeking to measure fiscal stance. ‘Trend GDP’ is an approximation of the underlying trend of actual GDP, which we will use to approximate the variations in the budget balance that would have occurred if the economy had actually grown according to its capacity. In contrast, ‘full employment GDP’ seeks to measure the level of GDP which should have been realised in order to ‘score’ full or high levels of employment. But it may be clear that the practical differences between both concepts are likely to be marginal. Table 1 shows that the average gap between actual and trend GDP corresponds closely with the rate of unemployment.

Table 1: Output Gaps and Unemployment, 1920-90

Period	Output Gap as % of ‘Trend GDP’	% Unemployment
1920-29	9.4	7.7
1930-39	10.9	11.1
1948-73	1.7	1.6
1974-79	3.8	3.6
1980-90	10.8	10.1

Note: Unemployment includes people in work-related government programs during the years 1983-89. For explanation of the ‘output gap’, see the main text.

Sources: Feinstein (1972); CSO (1990b).

Differentiation of Budget Items

There are obviously two sides to the impact of fiscal policies: public expenditure and public revenues. There is hardly any discussion about the fundamental differences between the several categories of government revenue and expenditure, beyond the fact that they should be weighed according to their effect on domestic demand.

Other studies have for instance included transfers to the public in the form of grants, social security payments, subsidies and debt interest payments in total government expenditure. We would argue that transfers in general are not really items of fiscal policy, at least not in the short-run. An argument for excluding *e.g.* welfare payments is that people contribute continuously to welfare funds, which are in fact a type of savings on which they draw in times of need. It is possible that the outlay is bigger than the inlay in times of recession, in which case the public insurance funds step in to relieve the need, or *vice versa*. In our opinion transfers are not really instruments of fiscal policy, which can be manipulated at in the short run by the government. They

should rather be treated as reverse direct and indirect taxes. We therefore consider public expenditure to be expenditure on goods and services only, and public revenue to be net revenue (*i.e.* total revenue *less* transfers to private enterprise and the public).

The corrections for the fact that changes in some budget items have a bigger impact on demand in the non-government sector than others also depend on arbitrary assumptions. It is only possible to guess the marginal propensities to consume domestically produced commodities over longish periods. There are no publications available on the long-term changes in these propensities. Estimates are at best available for a limited number of bench-mark years. Table 2 contains the weights which we assigned to the main budget items. In detail these weights are arbitrary, because they are based on very rough assumptions about the marginal effects of taxation and public expenditure on the domestic demand for domestically produced goods and services. The estimates do not take account of the propensities to consume imported products, which, obviously, does not further domestic output.

Table 2: Weights Assigned to the Main Budget Items

	This study	Savage (1982)	Biswas <i>et al.</i> (1985)
<i>Expenditure on Goods and Services</i>			
Goods and Services, Current	1.20	0.90	1.20
Goods and Services, Capital	1.00	0.85	1.00
<i>Other Expenditures</i>			
Subsidies and Grants	0.65	0.59 / 0.79	0.65
Debt Interest	0.20	0.39	0.20
<i>Taxes</i>			
Income Tax	0.60	0.59	0.59
Expenditure Tax	0.80	0.59	0.51
Tax on Capital	0.20	0.20	0.20
<i>Other Revenues</i>			
National Insurance Contributions	0.80	0.59	0.59
Gross Trading Surplus	0.33	0.39	0.33
Rent, Interest, Dividends	0.20	0.39	0.20
Overseas Grants	0	0	0
Imputed Charge for Consumption of Non-Trading Capital	0	0	0

Correction for Inflation

As explained above, we will deduct interest payments as a negative revenue from public receipts. We can therefore ignore the issue of ‘inflation tax’ mentioned in section 3. We choose a simple relatively solution to the correction for ‘fiscal drag’. While the impact of public expenditure on goods and services is expressed in real terms as a percentage of GDP in constant prices, the impact of public revenue is expressed in nominal terms as a percentage of GDP at current prices. It may be clear that a neutral change in tax revenue free of ‘fiscal drag’ is approximately one which leaves the proportion of tax revenue to GDP in nominal terms unchanged.

Fiscal Stance

The net effect is estimated with the first-round long-run multiplier effect only.¹¹ We thus assume that there are no recurrent multiplier effects. In reality there are of course such effects. However, after the first round the effects tend to be relatively marginal. Other studies have indicated that they will not change the results very much.¹² We choose to exclude them here, in order not to obscure the argument.

The impact of fiscal policy is expressed in Figure 4 as a percentage of GDP. The top part shows the share of public expenditure on goods and services expressed as a percentage of ‘trend GDP’ in constant 1938 prices. This should in principle eliminate the effects of incidental changes in GDP, so that the annual changes in the share of public expenditure reflect the extent to which policies governing public expenditure boost total demand in the economy. The share of net public receipts (*i.e.* total revenues *less* expenditure on grants, transfers and subsidies) expressed as percentage of nominal GDP. The bottom line indicates the trend of net fiscal impact.

-
11. The multiplier effect implies that public investment in durable assets, like roads and canals boosts national expenditure for one round. Their effect lasts much longer. For instance, roads generate improved transport facilities for a long period of time. In comparison, public expenditure on social welfare, in the form of grants and benefits, will induce consumer expenditure for one round, but will not generate any lasting spin-off. Likewise, a decrease of the rate of income tax is likely to lead to higher consumer expenditure, which contributes to total demand for one round only. Public investment to a comparable nominal amount has a lasting expansionary effect on effective demand and contributes to reducing unemployment.
 12. *E.g.* Hansen (1969: 20-22) states that 75% or more of the effect generally occurs during the first year.

Figure 4: Public Expenditure and Revenue as % of GDP, 1920-90

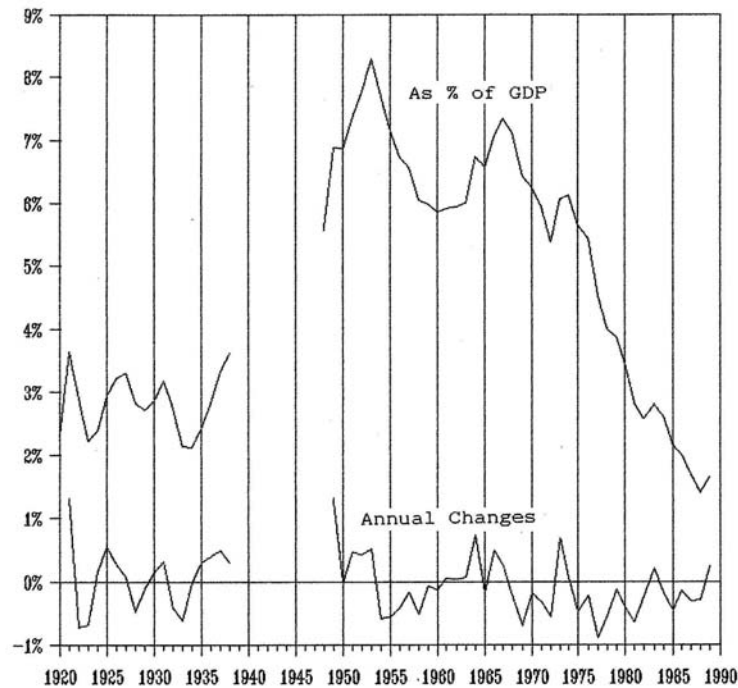


Note: Public expenditure refers to general government. See text for explanation.
Sources: Feinstein (1972); CSOa.

Figure 4 has two general features. First, the relative levels of expenditure and revenue were much lower during the interwar years, than after World War II, which is most likely caused by the increased post-war government commitment to welfare policies. Second, apart from the peak in net receipts during the years 1965-72, there was a gradual decline of net fiscal impact during the post-war years. The increase of net tax receipts during the years 1965-72 was in part due to the measures introduced by the Wilson government, which aimed explicitly at fiscal contraction following the devaluation of the pound in 1967 (Hicks and Hicks 1973: 149). This cannot be the complete answer, because the increase already started in 1965.

The gradual decline of net fiscal impact was determined by the decrease of public expenditure from a peak of 27% of GDP in 1953 to a low point of 13% in 1988. Figure 5 illustrates that the decline was to a large extent caused by a more than proportionate drop of capital expenditure on goods and services, or public investment. After an unprecedented high during the years 1947-75, it declined to below interwar levels in the 1980s.

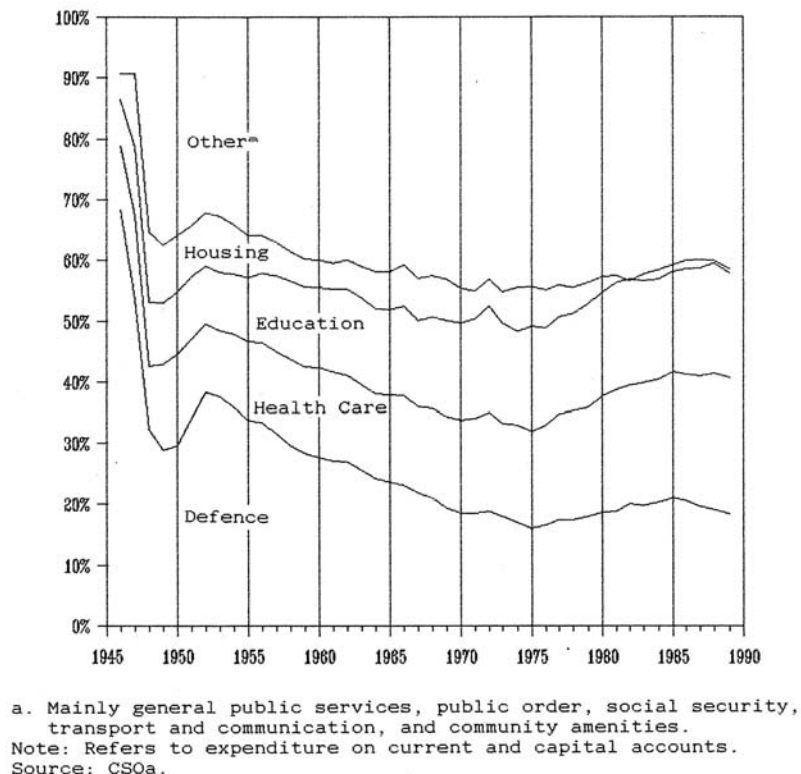
Figure 5: Capital Expenditure on Goods and Services, 1920-90



Sources: Feinstein (1972); CSOa.

Figure 6 shows that the decline of total expenditure on goods and services was caused by the gradual decrease of the share of defence spending until 1975, followed by a decline of the share of expenditure on housing. The decline of both groups was only partially compensated by the increasing shares of expenditure on health care and education. During 1946-49 the share of expenditure on defence decreased for obvious reasons. Apart from 1947 the relative level of expenditure remained high in the late 1940s and early 1950s. Figure 6 shows that the shares of social housing, education and public health care increased during these years. For instance, the Housing Act of 1919 had caused a slight increase in public expenditure during the early 1920. It was not until the late 1940s, that the government authorised local governments to borrow money for the realisation of subsidised housing schemes on a large scale. The 1953 peak was obviously caused by renewed expenditure on defence purposes, pending the Cold War and the conflict in Korea.

Figure 6: Categories of Government Expenditure on Goods and Services, 1946-90



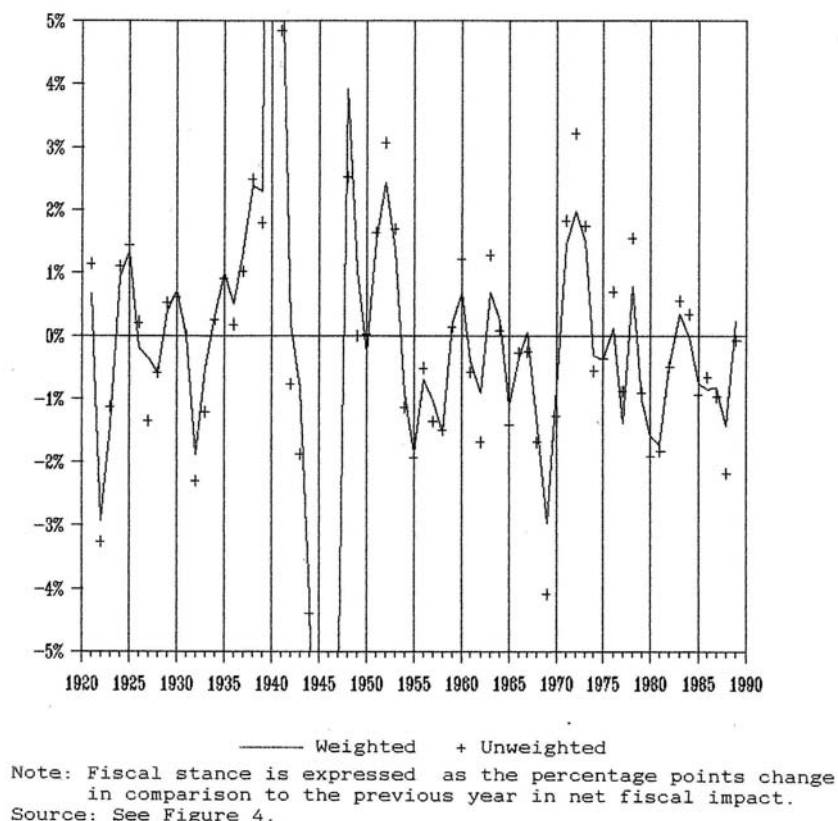
Another remarkable point in Figure 4 is that since 1979 the net fiscal impact of the public budget on total demand for goods and services in the economy has been negative. In other words, since the accession of the Thatcher government the public budget has been contracting in economic terms, even though most of the post-1979 years have seen deficits in the budgets of the general government in financial terms. The chart shows that the extent of the contraction goes far beyond that of the early 1930s and the late 1960s.

Figure 7 shows the annual changes in the net fiscal impact displayed in Figure 4. This is the fiscal impulse measured in percentage points of GDP. The annual values indicate the direction of the impact from year to year, and therefore the stance of fiscal policy. They give an estimate of the contribution of fiscal policy to year to year percentage changes in GDP. A positive result corresponds to an expanding impulse, a negative result to a contracting impulse. From this chart it becomes clear that the difference in impact between the weighted and the unweighted budget balance is relatively marginal. In most cases the indicators have similar signs, although the extent of the impulse differs.

The directions of our estimates of fiscal stance agree with the estimates of other authors, displayed in the four panels of Figure 8 for 1925-40, 1950-65, 1960-75 and 1975-90. It appears that in many cases our indicator of fiscal stance fluctuates much less than that of other authors. The differences are due to a complex of causes relating to the several points discussed above, such as

the inclusion of local authorities, the weighing of categories of revenues and expenditure, the correction for trend output, the used measure of output etc. It is almost impossible to separate one factor from the other. The main reason may be the fact that our estimates refer to the budgets of central and local governments. The changes in expenditure of local governments are less pronounced, because most of it is routine expenditure on *e.g.* housing and education, which is not due to vary very much from year to year.

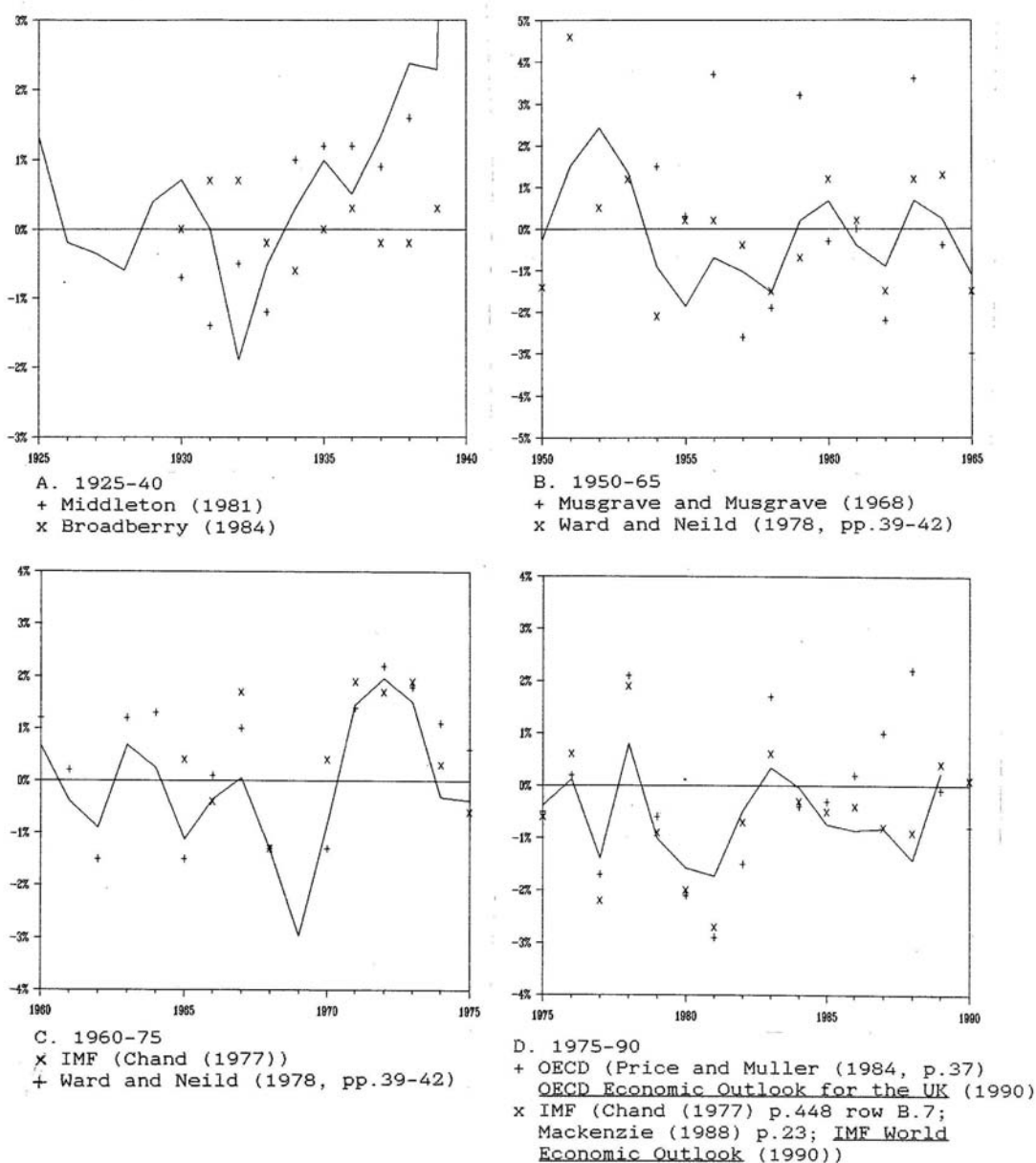
Figure 7: Fiscal Stance, 1929-90 (percentage points)



Finally, the results shown in Figure 9 allow an answer to the question to what extent fiscal policies have contributed to subduing or overcoming business cycles. It shows the difference between the actual annual changes in GDP for the entire period, and the changes netted for the impact of fiscal policy, representing the situation which may have emerged with only neutral fiscal policy. In general, the chart shows that governments did not manage to smooth business cycles, no matter what their political colour was. GDP growth remained erratic. It is not possible to conclude that purchasing power was injected into the economy at critical moments, in order to achieve counter-cyclical 'fine tuning'. This is not the place to discuss the results for individual years. We may point out that fiscal policies seem to have prevented set-backs in output growth in the late 1930s, 1948, 1952-53 and 1971-72. These were not really essential critical moments which

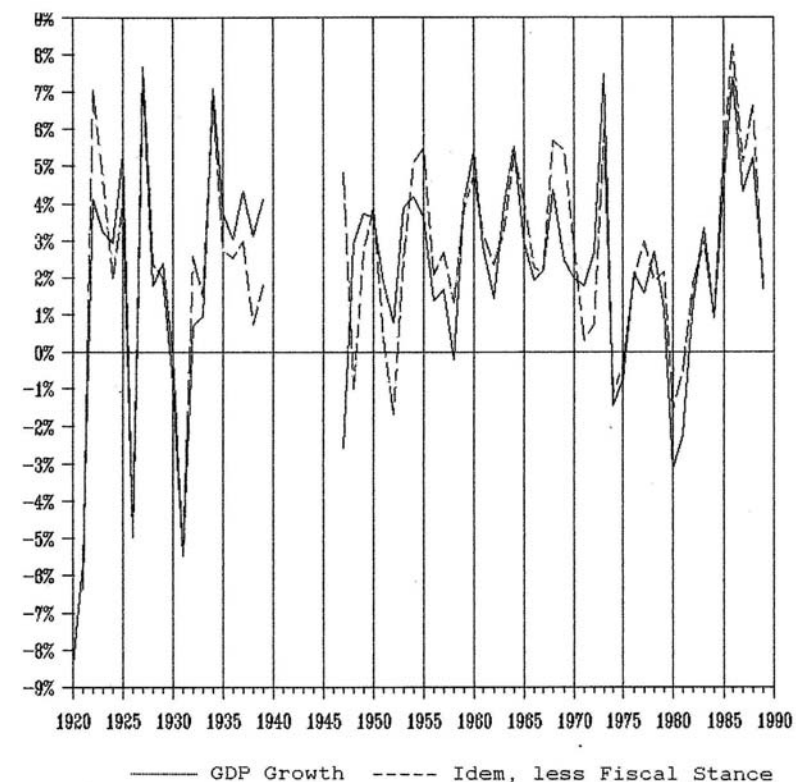
required 'fine tuning'.¹³ On the other hand, fiscal policies seem to have aggravated slow-downs of growth in 1958 and 1987. The slow-down of growth was especially high in 1980-81, the years during which the Thatcher government introduced the 'Medium Term Financial Strategy' in order to reduce budget deficits.

Figure 8: Comparison of Fiscal Stance Estimates, 1920-90



13. Matthews *et al.* (1982: 311) pointed out already that the cycles in output during the post-war years up to 1973 were on average much smaller than during the inter-war years. Not due to government policies, but due to the fact that exports fluctuated much less in the post-war years.

Figure 9: Actual and Policy Neutral Changes in GDP, 1920-90



Sources: See Figure 4.

As to the reasons why fiscal policy seems to have failed to contribute significantly to economic stabilisation at crucial moments, the main answer is that it is actually difficult to use tax and expenditure policies at short notice for stabilisation purposes (Dow 1964: Chapters 7 and 8). Expenditure, and especially public investment, is to a large extent fixed by long-term political commitments. Short-term stabilisation therefore has to result mainly from tax changes. But tax changes have to be prepared, and the time lag between the moments at which the fiscal effect is required and at which it becomes effective may be substantial.

We now understand that there has not been anything like ‘fine tuning’ during the period under observation. That does not mean that the effects over longer periods of time may not have been significant. Table 3 indicates the extent to which stabilisation was achieved with fiscal policies during the main periods under observation. A positive difference in the table indicates that fiscal policies on average increased the output gap. During most years the effect was on average relatively small; less than 10% either way. Only during the period 1948-73 was the contribution of fiscal policies higher, contributing on average 14% to a decrease in the output gap. However, the gap was relatively small during those years, and the need for a positive contribution from fiscal policy was not as urgent as during the other years. It appears that in the 1930s fiscal policies indeed contributed to overcoming the output gap. This was not just an effect of the start of preparations for

World War II at the end of the 1930s. Figure 9 shows that this effect already occurred several years earlier. The effect generated in the 1930s is in sharp contrast to the late-1970s and 1980s, when policies appear to have increased the output gap and therefore the rate of unemployment. During the 1920s the results were erratic and relatively insignificant.

Table 3: Achievement of Stabilization, 1920-89

Period	Average % Deviation from Trend GDP			% Contribution of Policy to Reduction of Output Gap
	Actual GDP	Idem, Corrected for Policy	Difference ^a	
1920-29	9.5	9.3	0.2	-2.1
1930-39	11.7	12.1	-0.4	3.4
1948-73	2.2	2.5	-0.3	13.6
1974-79	4.1	3.7	0.4	-9.8
1980-89	11.1	10.5	0.6	-5.4

a. Annual average percentage points.

Source: See Figure 9.

6. Comparison of Fiscal Stance in the US

The procedure which we have introduced in this paper is simple and effective. It appears to render similar results as can be obtained with other, more sophisticated procedures. The advantage of our procedure is that it makes long-term assessments of the impact of fiscal policy in other countries relatively easy, provided that a coherent set of historical national accounts and adequate series of total public expenditure are available. In order to illustrate this point, we will make a brief assessment of the impact in the United States since 1929. For the sake of brevity we will leave out the choices made to estimate ‘trend GDP’. Table 4 shows the weights used to aggregate the budget items.

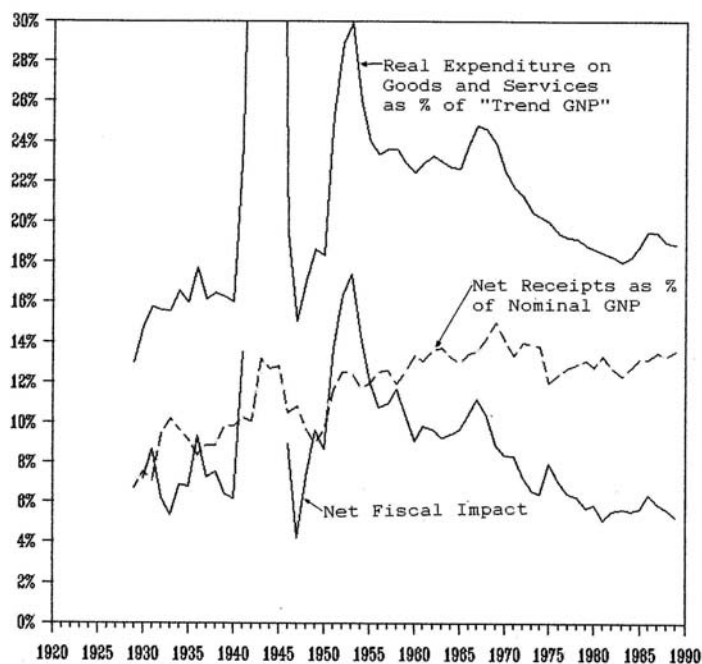
Table 4: Weights Assigned to the US Budget Items

	Weight
<i>Expenditure</i>	
Goods and Services	1.00
Subsidies and Grants	0.65
Debt Interest	0.20
<i>Taxes</i>	
Personal Tax	0.60
Corporate Tax	0.20
Indirect Tax	0.80
<i>Other Revenues</i>	
Social Security Contributions	0.80
Trading Surplus	0.33
Interest and Dividends	0.20
Other	0.20

A comparison of Figure 4 with Figure 10 immediately shows that the net fiscal impact has always been positive in the US, compared to the UK. The pattern of the net impact is very similar: an enormous increase during the war years, followed by a steep decline in the late 1940s, a steep increase in the early 1950s, and a gradual decline into the 1980s due to decreasing public expenditure as a percentage of GNP. The fact that net fiscal impact has always been positive is mainly caused by the fact that tax revenues as a percentage of GNP are lower in the US compared to the UK.

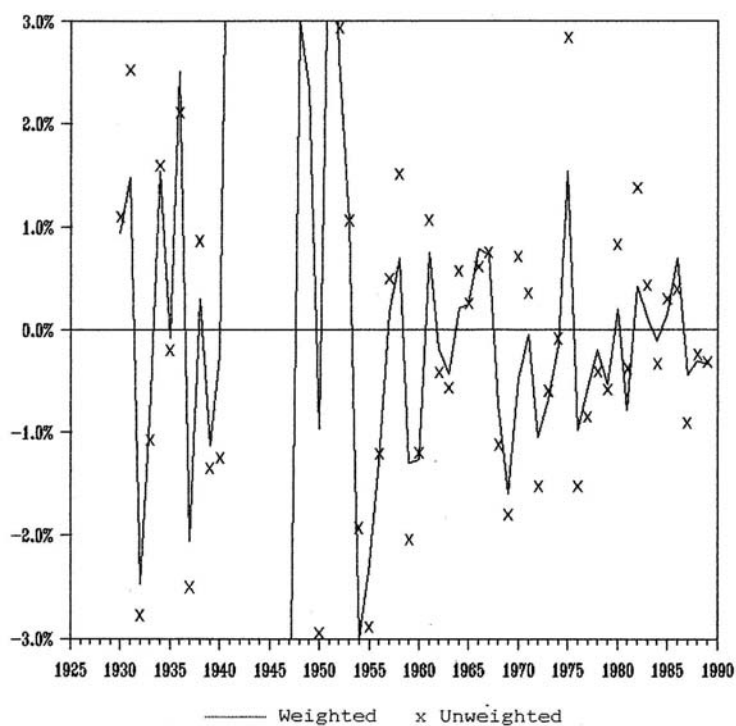
As for the stance of fiscal policy in the US shown in Figure 11, it appears that the impact of fiscal policy was only really significant during the years 1931, 1934, 1936, the war years, 1948-49, 1951-53 and 1975. During the years 1934 and 1936 the effect may have been part of the 'New Deal' program, 1948-49 are likely to have been caused by economic support to Western Europe provided under the Marshall Plan, 1951-53 by the military support to Western Europe and the war in Korea, and 1975 by the aftermath of the war in Vietnam.

Figure 10: Public Expenditure and Revenue as % of GNP in the US, 1929-90



Note: Public expenditure refers to central government expenditure only. See text for explanation.
Sources: USDC (1986); USDC (1986-90).

Figure 11: Fiscal Stance in the US, 1929-90 (percentage points)



Note: Fiscal stance is expressed as the percentage points change in comparison to the previous year in net fiscal impact.
Source: Figure 10.

7. Conclusion

In this paper we set out to measure the impact of fiscal policy on economic growth in the UK. Any assessment of the degree of success of stabilisation policy has to be done with caution, because there are many difficulties involved, both in the conceptual and the empirical sphere. The most important of these problems have been discussed.

The procedure applied in this paper for assessing fiscal stance is no doubt dauntless, but it is concise and transparent. The results obtained with it appear to be just as good or weak as that of any other procedure. The advantage of the procedure is that it can very easily be used for long periods back in time. The measures of fiscal stance suggest that it is unlikely that British governments have been able to use fiscal policies in order to 'manage' total demand in the economy in an attempt to avoid the impact of business cycles, particularly on unemployment.

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